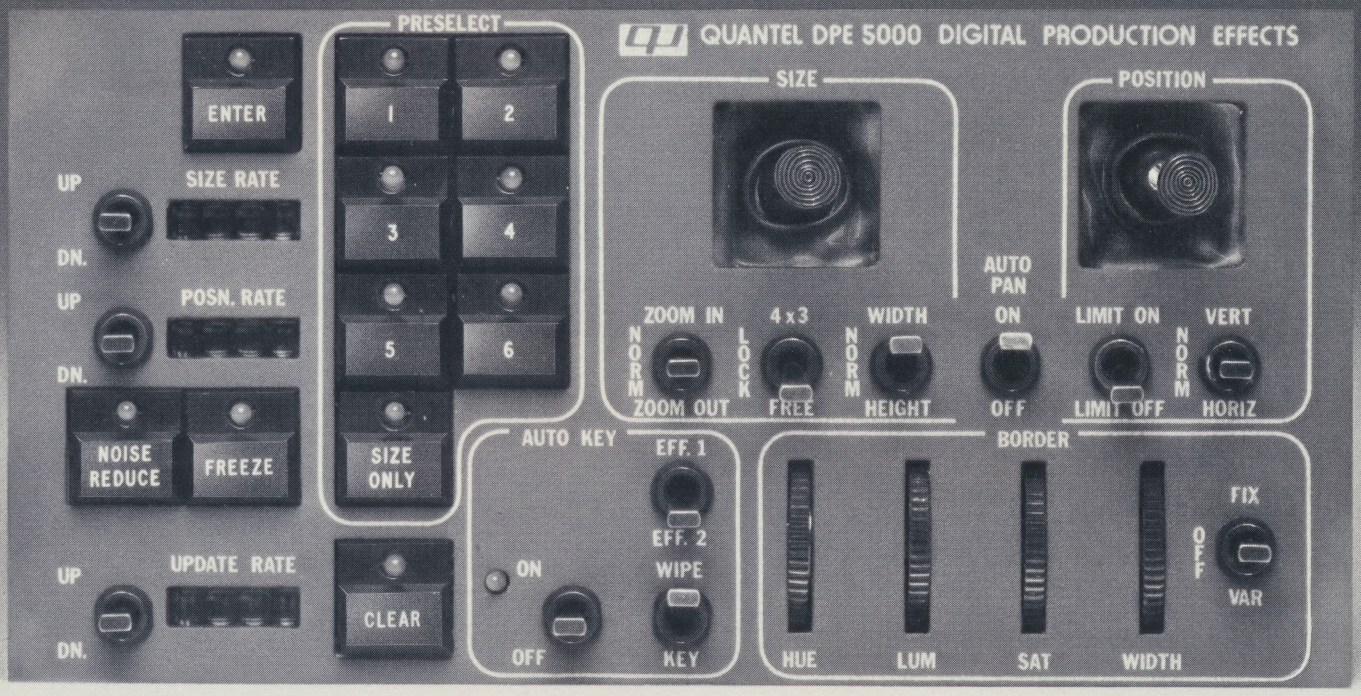


Production control panel of the DPE 5000.

Sep 71

SOME PEOPLE GIVE YOU DIGITAL EFFECTS.

WE GIVE YOU DIGITAL EFFECTS WITH OPTICAL QUALITY.

There's good reason why the Quantel DPE 5000 is the world's most widely used system for digital effects: optical quality.

The DPE 5000 produces effects that are smooth, realistic, virtually indistinguishable from optical effects. Good enough to be used live on the air. With confidence.

A full-fledged minicomputer and several microprocessors handle millions of digital manipulations that make Quantel effects more camera-like.

And our unique production control panel, shown above, gives the operator "extra hands" to smoothly control operation and bring into play the marvelous range of DPE 5000 effects. Automatic functions, programmed routines, and fail-safe limits simplify control and eliminate constant planning and anticipation.

With the DPE 5000, you can actually expand the power of your switcher. (It can be easily interfaced to *any* switcher.) You can preselect effects—shapes, sizes, positions, even transition rates from one effect to the next.

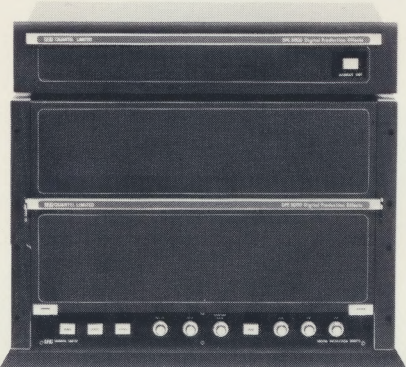
Using optional NO-BLANK noise reduction/blanking correction feature, you can salvage tapes that don't meet FCC blanking requirements.

The net effect of Quantel digital effects is a better, more exciting picture on the air—and a better, more rewarding bottom line.

For more details, call your nearest MCI/Quantel representative. Or get in touch with us directly:

Micro Consultants, Inc.,
P.O. Box 10057, Palo Alto,
California 94303, 415/321-0832.

MCI/QUANTEL



The digital video people

Sep 79

Announcing the Quantel DPE 5000.

Digital effects with optical quality from the most advanced device of its kind ever offered to broadcasters.

The Quantel DPE 5000 is the computerized digital effects system that is bringing an exciting new look to television.

The DPE 5000 is the culmination of all the pioneering work that has made Quantel first in digital video, and that has enabled broadcasters to enhance practically every major television production since the 1976 Montreal Olympics.

Consider some of the things the DPE 5000 can do to television pictures — in post-production or live on air.

It can freeze them. Squeeze them. Flip them. Wrap them around.

It can compress them. Expand them. Position them. Push and pull them.

It can pan and tilt them. Put borders around them. Reduce noise.

It can automatically track a chroma key area and fit a compressed picture into the slot.

And, with true computer programmability, it can actually learn sequences of events and play them back — automatically — whenever required.

It is, in short, the ultimate digital effects system.

MCI/QUANTEL

Unparalleled quality and fidelity

The DPE 5000 not only allows all these manipulations with television pictures, it does so with remarkable smoothness and fidelity — far beyond anything yet seen in digital effects, and far beyond what even the most fastidious expert would demand.

Computer power makes it possible, providing a powerful array of real-time arithmetic functions operating on the picture. The DPE 5000 truly brings the world of computers to the world of television.

Small enough to go where the action is

The DPE 5000 is not only powerful but portable. The basic unit including PDP-11 minicomputer occupies just 15¾ inches of rack height. The small control panel fits neatly into a production switcher, or may be used freestanding. Heat dissipation is minimal. Thus the system is just as suitable for OB van use as it is for the studio.

Expandable to fit your needs

The basic DPE 5000 comes with minicomputer and "smart" control panel. Options include noise reduction, expansion, and Quantel **Autosequence**™ disk drive with control panel. All are retrofittable. For operating with non-synchronous video sources, the system can be equipped with either the Quantel DFS 1500 fieldstore or DFS 3100 framestore synchronizers.

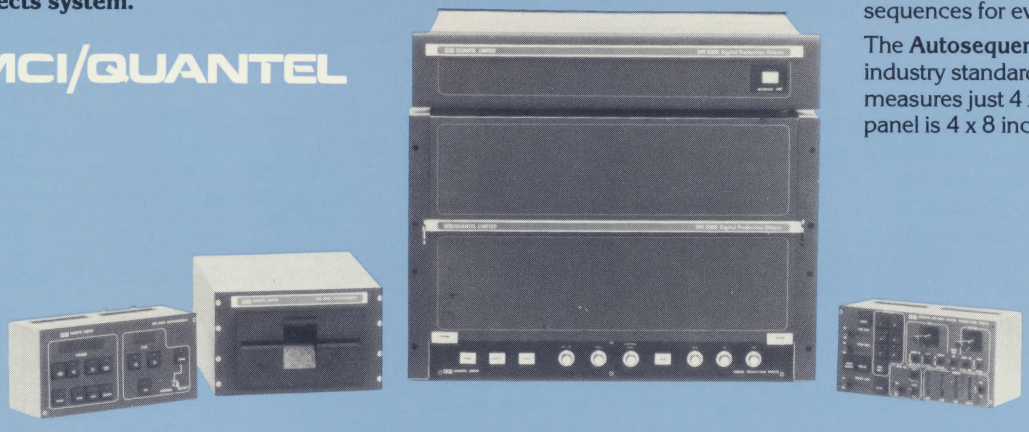
It can interface to your switcher

Quantel engineers have designed the DPE 5000 so that it can be simply interfaced to any production switcher either directly or through an interface adapter.

Autosequence for programmed effects

Through the storage power of a mini disk drive, the optional Quantel **Autosequence** can remember any sequence created with the DPE 5000's control panel. Producers and directors can now carry their chosen effects for a show from site to site and be guaranteed the same effects sequences for every show in the series.

The **Autosequence** disk drive, which uses industry standard mini floppy disks, measures just 4 x 6 x 8 inches. Its control panel is 4 x 8 inches.



Digital effects performed with incredible fidelity

Zoom out (Variable compression)

The DPE 5000 lets you infinitely vary picture compression, from full size to zero, with outstanding definition throughout the range of the zoom. Special effects with the picture disappearing into or reappearing from any spot on the raster give the producer capabilities which until now only the film maker had at his disposal. And they can be accomplished live on air as well as in post-production.

Zoom in (Variable expansion)

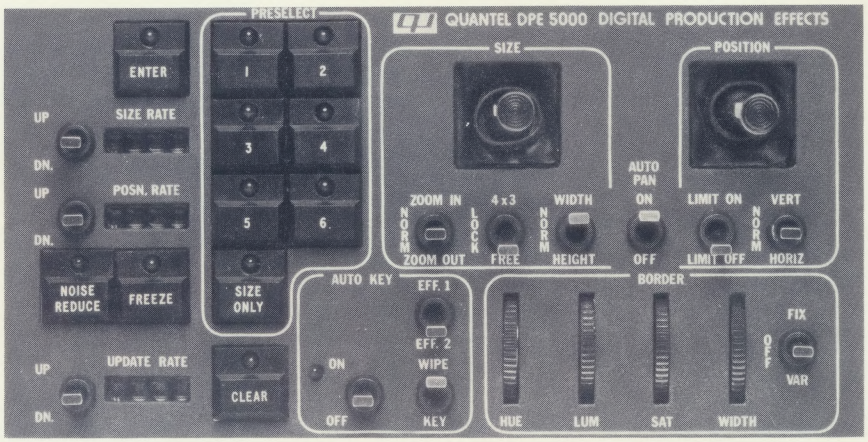
This optional feature provides true zoom-in capability. If part of a picture needs a dramatic close-up, it can be brought directly into the full frame display. Or, if the picture is not framed exactly as the producer wishes, he can in effect reframe it electronically. The zoom-in range gives a smooth progression from zero picture size to four times full size. Zoom size may be changed instantaneously within one frame or slowly on a scale which has a resolution of over one part per thousand. The result is almost indistinguishable from that produced by a cameraman.

Pan and tilt

The DPE 5000 provides picture positioning that looks as though it had been done by a cameraman. The position can be placed with infinite accuracy to a point well beyond the resolution of the horizontal and vertical system definition. The position joystick on the "smart" control panel has remarkable sensitivity. The picture can be moved across the screen over a period that is variable from instantaneous to as long as several hours.

Squeeze

The DPE 5000 lets you change the ratio of the linear dimensions in the horizontal and vertical axes. The standard 4 x 3 aspect ratio can be infinitely varied or the squeeze may be in one dimension only, horizontal or vertical, from full size to zero. The "smart" control panel permits squeezing to any size no matter where the center of the image is placed on the screen. Flips can be accomplished by compressing a picture to zero on one axis only and then expanding it back to full size. New pictures may be introduced at the point when compression reaches zero.



DPE 5000 "smart" control panel

Noise reduction

With this optional DPE 5000 feature cleaning up the picture, ¾-inch ENG tape suddenly looks like it came from a one-inch machine. The picture becomes crisp, quiet, and without moire. Not only does it make ENG tape acceptable for more critical users, it also gives multi-generation capability without degradation for all tape formats.

Freeze

The DPE 5000 produces a freeze as good as stop motion on film. There is no flicker of luminance or chrominance. The full power of the unit's arithmetic is brought into play to provide resolution superior to anything yet seen. Moreover, the availability of noise reduction lets you freeze a picture that is already quiet, eliminating frozen-in noise.

Auto-key tracking

The DPE 5000 computes both the position and size of a chroma key area. It then automatically fits a compressed picture into the chroma key slot. Aspect ratio may be fixed at 4 x 3 or allowed to follow freely the keyed slot, regardless of its aspect ratio. The pattern recognition system is so sophisticated it can control the position and stability of the image perfectly even under extreme conditions of key raggedness, or with talent moving across the key area, or of the key area being panned off the screen.

Titling

With a character generator as part of the switcher, titling or shot identification can be controlled by the DPE 5000. It will automatically zoom the characters to maintain their precise ratio with the rest of the incoming video.

"Smart" control panel

The wide functional range of the DPE 5000 is precisely controlled by the "smart" control panel. The power of its microprocessors virtually becomes the power of the human operator, giving him "extra hands" to smoothly control operation. Automatic functions, programmed routines, and "fail safe" limits simplify control and eliminate constant planning and anticipation.

The DPE 5000 digital production effects system is so powerful, so versatile, so encompassing in its range of capabilities —and the fidelity of the effects it produces so far beyond anything yet seen—that only through a live demonstration can it be fully appreciated. To arrange such a demonstration, get in touch with your local MCI/Quantel office. Or write Micro Consultants, Inc., P.O. Box 10057, Palo Alto, California 94303, (415) 321-0832.

MCI/QUANTEL

The digital video people

Form No. 1077R Printed in U.S.A.